

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/014912

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H03K5/13

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/186064 A1 (OOISHI TSUKASA) 12 December 2002 (2002-12-12)	1,5-8
Y	paragraphs '0005! - '0013! paragraphs '0225! - '0234! figures 30,31,55	2-4
Y	WO 02/095943 A (ATYUNIN VASILY GRIGORIEVICH) 28 November 2002 (2002-11-28)	2-4
A	page 4, line 18 - page 8, line 3; figures 1,2	1,5-8

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

24 May 2005

Date of mailing of the international search report

26/07/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Meulemans, B

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/014912

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002186064 A1	12-12-2002	JP 2001339283 A US 2001045856 A1	07-12-2001 29-11-2001
WO 02095943 A	28-11-2002	EP 1410504 A2 WO 02095943 A2 US 2002196061 A1	21-04-2004 28-11-2002 26-12-2002